

REMARKS

This Amendment cancels claims 10 and 11, and rewrites claims 9 and 14. The "deep groove width" feature of claim 9 is taken from claim 10, while the "shallow groove adjacent to a deep groove" feature is taken from claim 11. The changes to claim 14 are editorial. Claims 9 and 12-16 are pending.

The objection to the specification is respectfully traversed. The application format set forth in MPEP § 608.01(a) - including the headings - is a preferred guideline rather than mandatory. As for the abstract, the original abstract was located after the claims on a separate sheet of paper. The Preliminary Amendment filed with the application included a substitute abstract on a separate sheet of paper, and an express instruction to "replace the original abstract with the attached substitute abstract." Accordingly, it is believed the abstract is located after the claims. Reconsideration and withdrawal of the objection to the specification are earnestly requested.

This Amendment overcomes the objection to claims 9, 10 and 16. More particularly, "groove" has been changed to -- grooves -- in claim 9 in accordance with the Examiner's helpful suggestion. Claim 10 has been canceled and its features incorporated into claim 9. Claim 14, from which claim 16 depends, has been rewritten to overcome the objection. More particularly, claim 16 defines a

particular embodiment of claim 14, in which the reaction zone defined in claim 14 is at a distance from the partition such that capillary action is not enabled. Claim 15 defines an alternative embodiment, in which the reaction zone defined in claim 14 is at a distance from the partition such that capillary action is enabled. It is respectfully submitted that claim 16 is a proper dependent claim. Reconsideration and withdrawal of the objection to claims 9, 10 and 16 are earnestly requested.

This Amendment overcomes the 35 U.S.C. § 112, second paragraph, rejection of claims 9-16. More particularly, claim 14 has been amended by deleting reference to the deep groove having "free" ends.

The second ground for the indefiniteness rejection is respectfully traversed. It is possible to (1) enable capillary action in a specific region of the apparatus thanks to a specific depth between the shallow grooves and the partition, and (2) not enable capillary action in another region of the apparatus, such as in the deep grooves or, e.g., by increasing the depth between the shallow grooves and the partition in a specific part of the grooves. Reconsideration and withdrawal of the indefiniteness rejection of claims 9-16 are earnestly requested.

The 35 U.S.C. § 102(b) rejection of claims 9-13 over U.S. Patent No. 5,279,791 to Aldrich et al. is respectfully traversed.

A feature of the claimed apparatus is a planar surface wherein at least two compartments are located, and which are defined by a partition.

Aldrich et al. fails to disclose or suggest these features of the claimed apparatus. Instead, this reference discloses a liquid control system for an analytical apparatus having a slot adapted to receive an insertable cartridge. The apparatus and the cartridge are designed such that a capillary gap is created between the surfaces of the slot and the cartridge when the cartridge is inserted into the slot. This "liquid control region" retains any spilled liquid in an easily cleaned region on the exterior surface of the apparatus. ✓

The external surface of the analytical apparatus in Aldrich et al. is not planar, and it does not have two compartments defined by a partition. The capillary action created in Aldrich et al. is due to the combination of two devices (i.e., the analytical apparatus and the cartridge) acting together, whereas the present invention is not a combination of two devices.

Aldrich et al. also fails to suggest the claimed apparatus for enabling liquid transfer. The technical problem solved by the inventors (transfer of small volumes of different liquid in a small space, preventing the mixing of these liquids in a specific place of the apparatus and optionally allowing it in another specific

place denominated a reaction zone) is completely different than the one solved by Aldrich et al. (preventing spilled liquid from contaminating the interior of an analytical apparatus). One of ordinary skill in the art is given no disclosure, teaching or suggestion which would motivate him to modify Aldrich et al. to arrive at the claimed apparatus.

Reconsideration and withdrawal of the anticipation rejection of claims 9-13 over Aldrich et al. are earnestly requested.

The 35 U.S.C. § 102(b) rejection of claims 9-16 over U.S. Patent No. 5,286,454 to Nilsson et al. is respectfully traversed. As discussed above, a feature of the claimed apparatus is a planar surface wherein at least two compartments are located, and which are defined by a partition. The compartments create a space which makes it possible to displace at least two liquid samples independently of one another, and comprise at least two different types of grooves: deep grooves capable of partitioning samples from one another, with the depth and width of the grooves being such that capillary action is not enabled; and shallow grooves capable of receiving a sample, the depth of the shallow grooves in relation to the partition being such that capillary action is enabled.

Nilsson '454 fails to disclose either the grooves or the "two liquid samples" features of the claimed apparatus. Instead, Nilsson '454 discloses a cuvette having different compartments (12,

17, 21, 28, etc.) linked by channels (14, 20, etc.). These elements cannot be considered to be grooves, i.e., long and narrow notches. Moreover, these elements are all interdependent such that the analysis fluid is transferred from one element to the next element. Thus, the liquid is transferred from upper section 12 (which is capillary) to non-capillary lower section 17 via non-capillary channel 14 and capillary cavity 16. This configuration clearly does not disclose the displacement of two liquid samples independently of one another.

Nilsson '454 also fails to suggest the claimed apparatus to one of ordinary skill in the art. The aim of Nilsson '454 is to provide a means to make analysis, by taking up the fluid, mixing it and making it react with a reagent, independently of the skill of those performing the analysis. One of ordinary skill in the art is given no motivation or suggestion which would lead him to the claimed apparatus.

Reconsideration and withdrawal of the anticipation rejection of claims 9-16 over Nilsson et al. are earnestly requested.

The Form PTO-1449 attached to the Official Action indicated that only partial copies of several references were included as part of the Information Disclosure Statement filed with the

application. Complete copies of the references¹ and a new Form PTO-1449 are being submitted with this Amendment. The Examiner is requested to consider the complete disclosures of these references pursuant to 37 C.F.R. § 97(f) ("if a bona fide attempt is made to comply with § 1.98, but part of the required content is inadvertently omitted, additional time may be given to enable full compliance.")

It is believed this application is in condition for allowance. Reconsideration and withdrawal of all rejections of and objections to claims 9-16, and issuance of a Notice of Allowance directed to claims 9 and 12-16, are earnestly requested. The Examiner is urged to telephone the undersigned should she believe any further action is required for allowance.

A Petition and fee for an Extension of Time is attached. It is not believed any additional fee is required for entry and consideration of this Amendment. Nevertheless, the Commissioner is

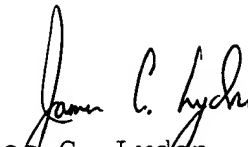
¹U.S. Patent No. 6,124,138 is a U.S. counterpart to WO 97/36681.

U.S. Appln. S.N. 09/936,077
AMENDMENT

PATENT

requested to charge any such required fee to our Deposit Account
No. 50-1258.

Respectfully submitted,


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Enclosures:

Petition for Extension of Time
Complete copies of previously-submitted references
Form PTO-1449